

FIG. 1

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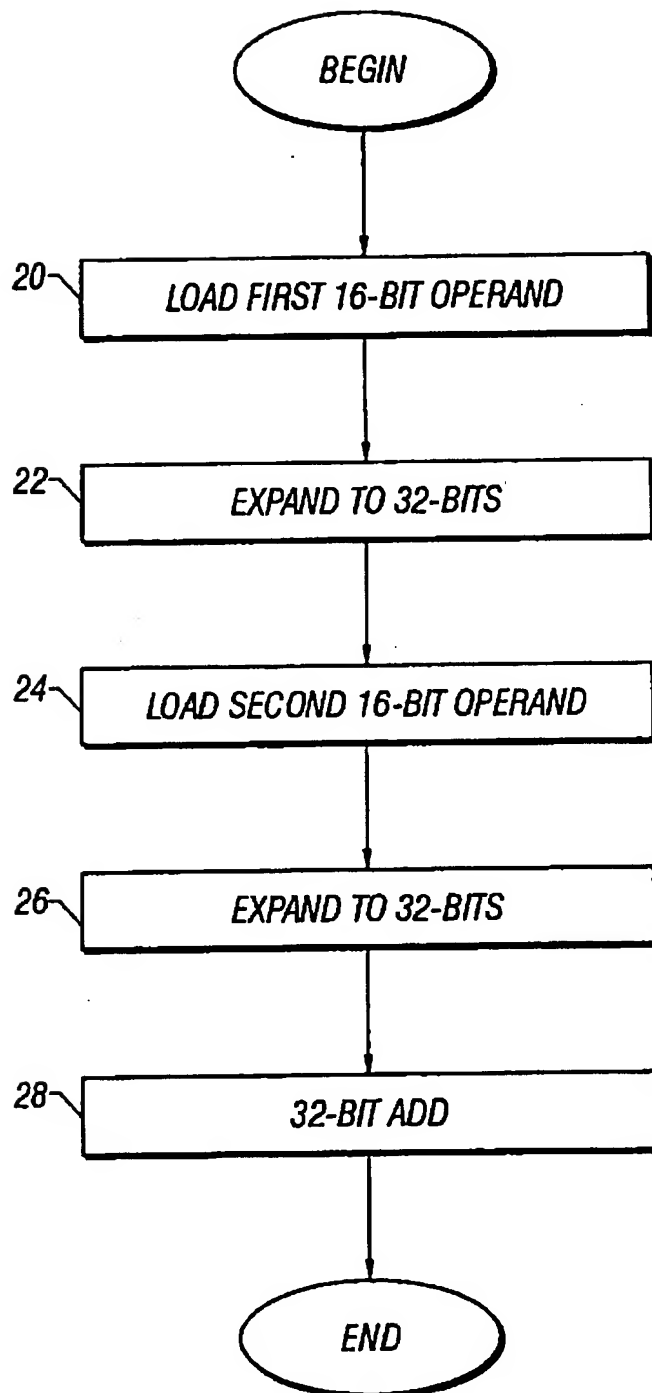


FIG. 2A

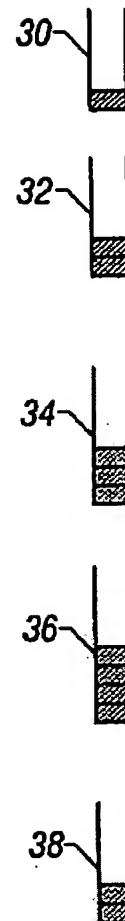


FIG. 2B

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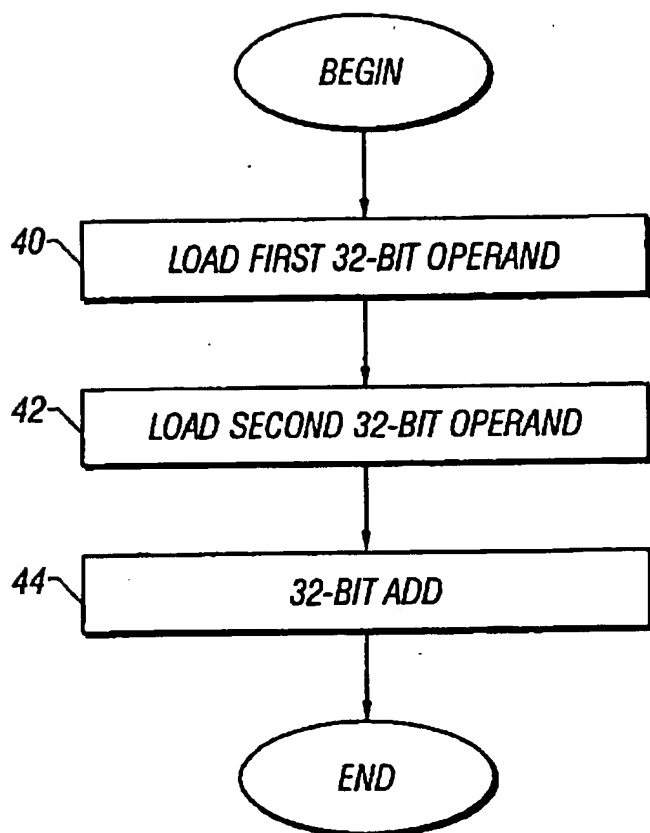


FIG. 3A

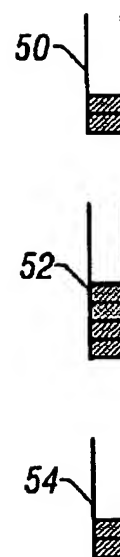


FIG. 3B

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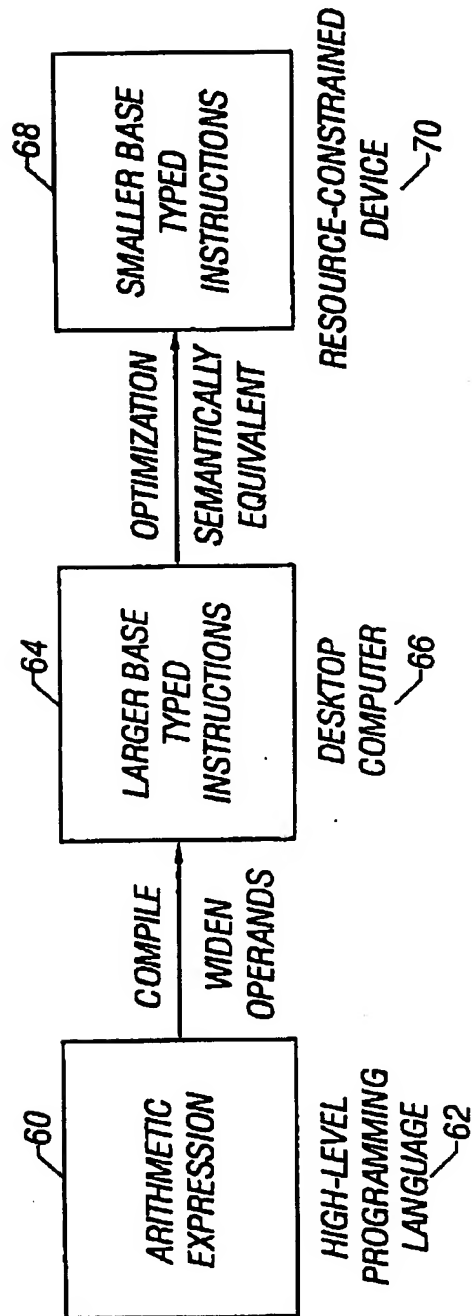


FIG. 4A

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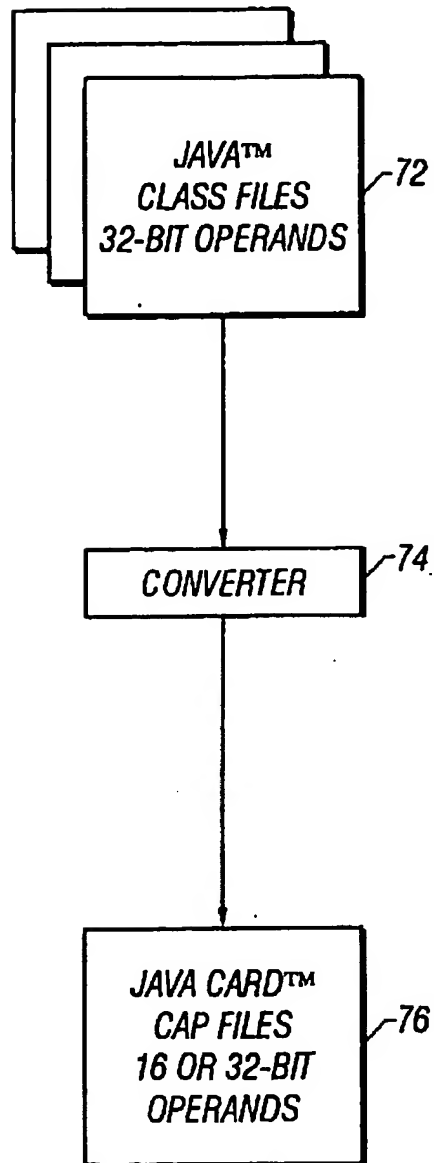


FIG. 4B

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Desktop Computer

*short a = 0x7FFF;*  
*short b = 1;*  
*short c = 1;*

*result = a [ int-type add] b;*  
*= 0x00007FFF + 1*  
*= 0x00008000*  
*= 32768*

**FIG. 5A**

Resource-Constrained Device

*short a = 0x7FFF;*  
*short b = 1;*  
*short c = 1;*

*result = a [ short-type add] b;*  
*= 0x7FFF + 1*  
*= 0x8000*  
*= -32768*

**FIG. 5B**

*result = (short) a [ int-type add] b*  
*= (short) (0x00007FFF + 1)*  
*= (short) (0x00008000)*  
*= 0xFFFF8000*  
*= -32768*

**FIG. 6A**

*result = (short) a [ short-type add] b*  
*= (short) (0x7FFF + 1)*  
*= (short) (0x8000)*  
*= -32768*

**FIG. 6B**

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<i>result = (short) (a [ int-type add] b</i>	<i>result = (short) (a [ short-type add] b</i>
<i>          [ int-type add] c)</i>	<i>          [ short-type add] c)</i>
<i>= (short) (0x00007FFF + 1 + 1)</i>	<i>= (short) (0x7FFF + 1 + 1)</i>
<i>= (short) (0x00008001)</i>	<i>= (short) (0x8001)</i>
<i>= 0xFFFF8001</i>	<i>= -32767</i>
<i>= -32767</i>	

**FIG. 7A**

**FIG. 7B**

*result = a [ int-type add] b*  
*[ int-type divide] c*  
*= (0x00007FFF + 1) / 2*  
*= 0x00008000 / 2*  
*= 0x00004000*  
*= 16384*

**FIG. 8A**

*result = a [short-type add] b*  
*[ short-type divide] c*  
*= (0x7FFF + 1) / 2*  
*= 0x8000 / 2*  
*= 0xC000*  
*= -16384*

**FIG. 8B**

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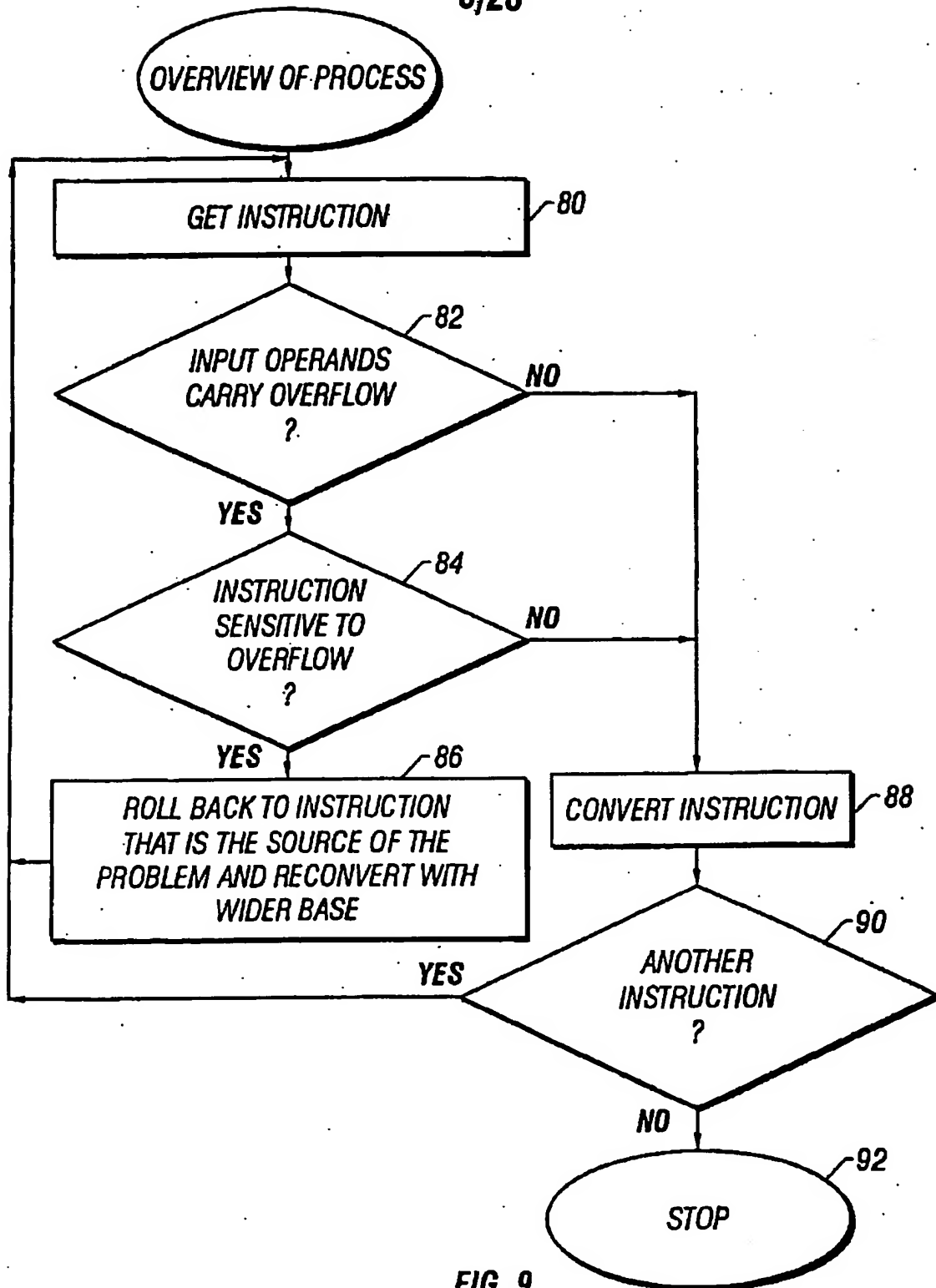


FIG. 9



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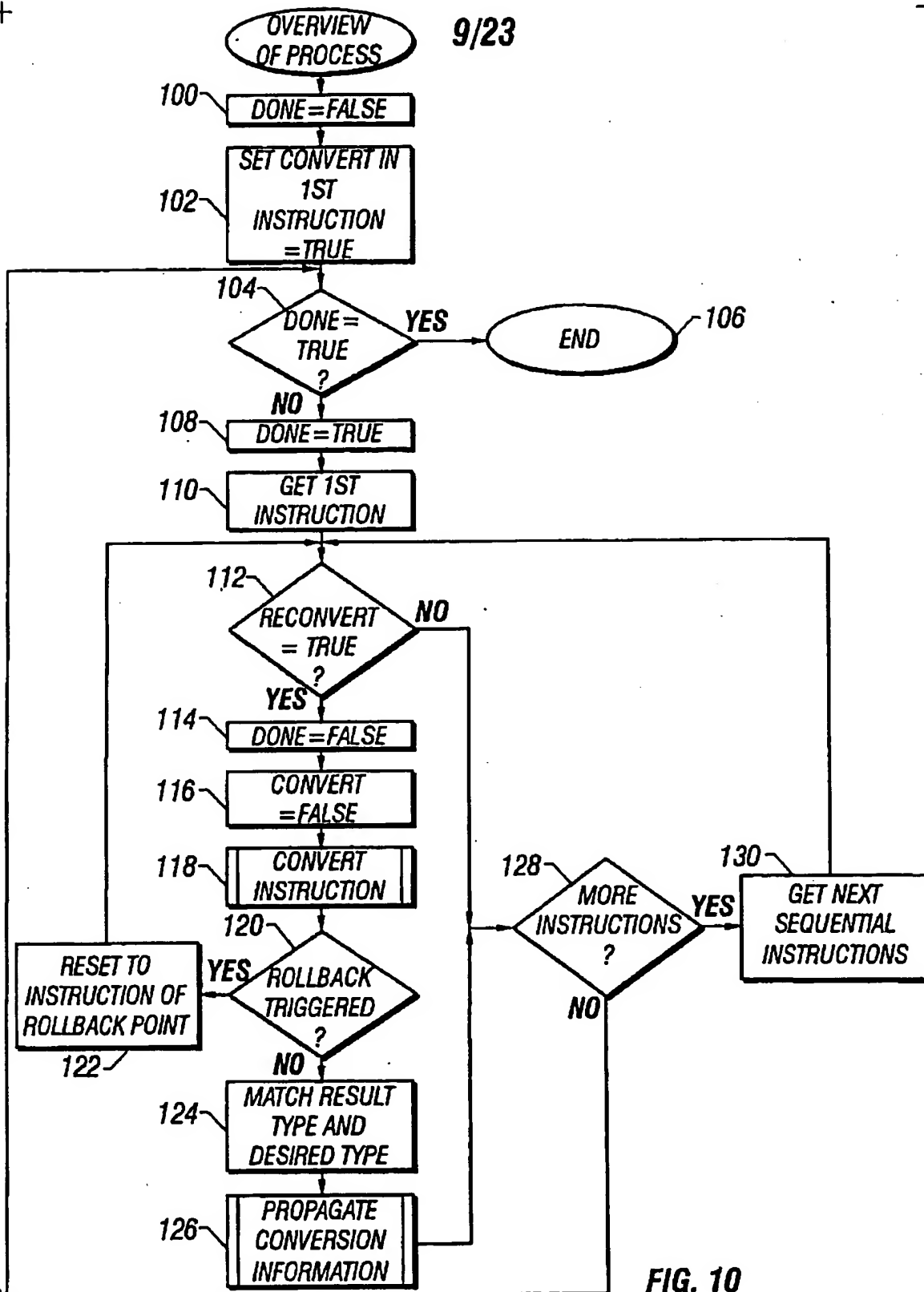


FIG. 10

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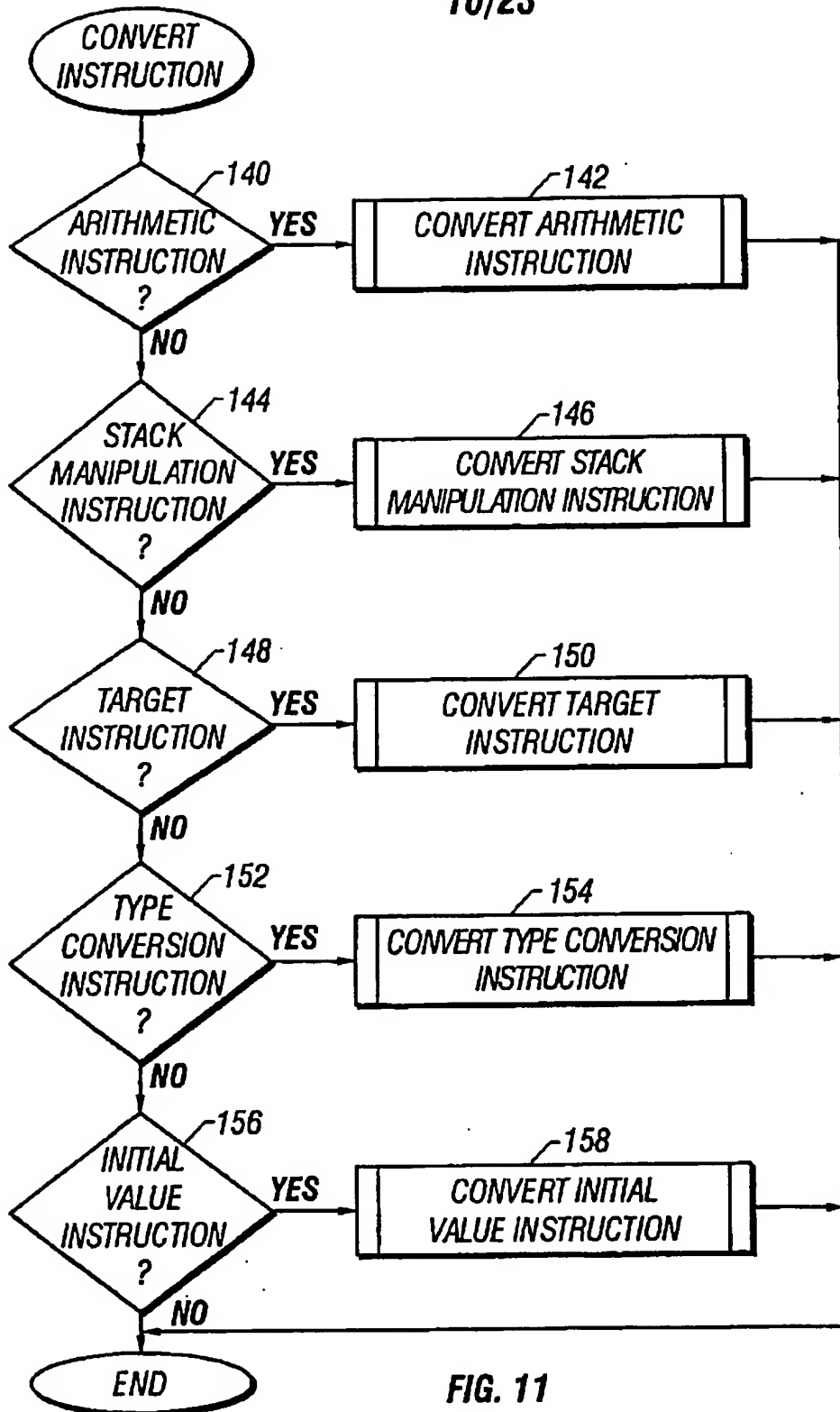


FIG. 11

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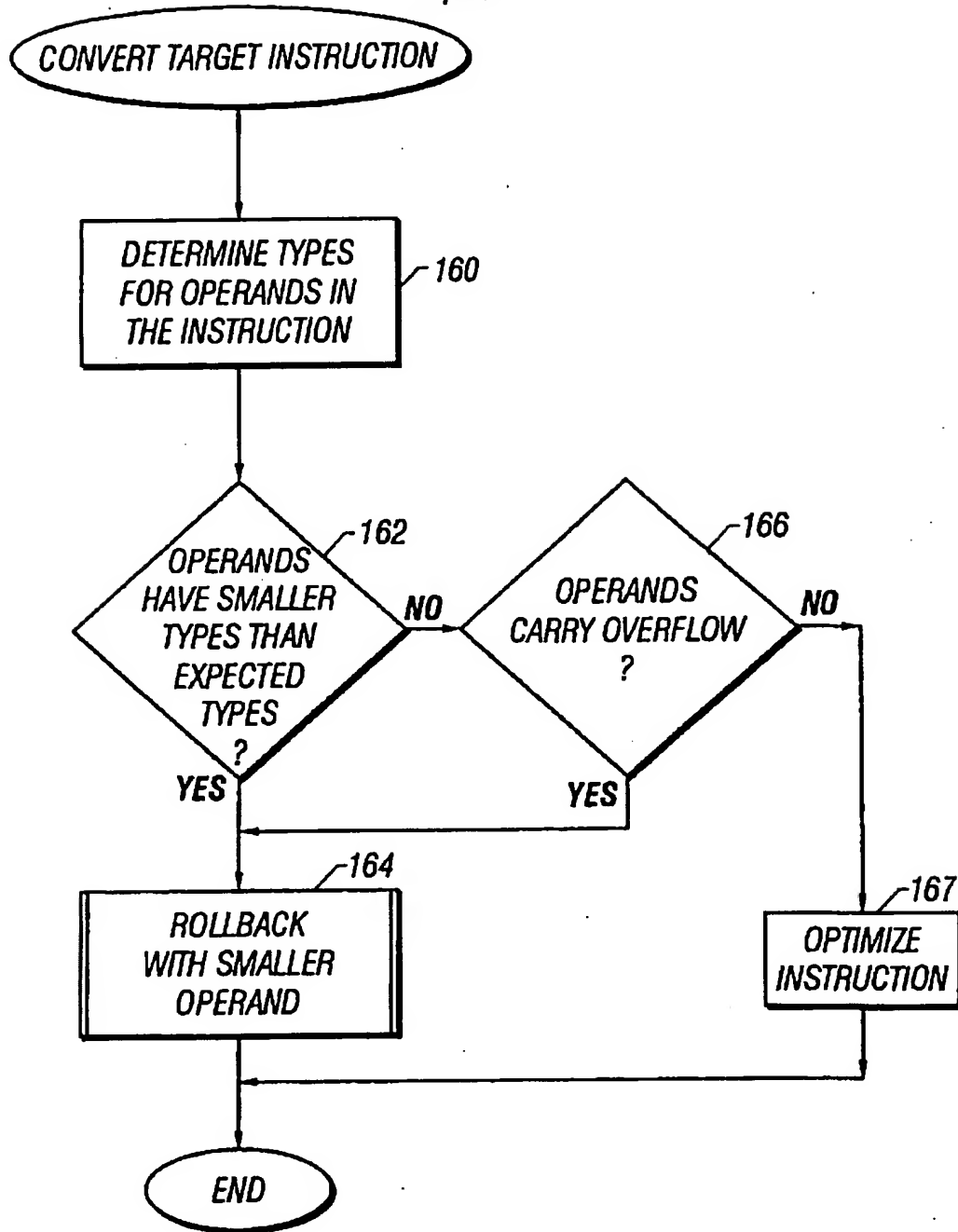


FIG. 12A

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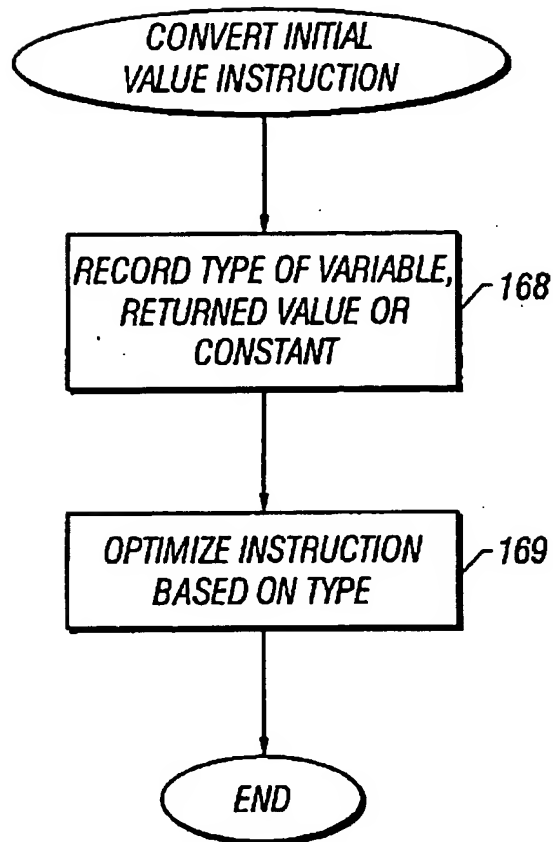


FIG. 12B

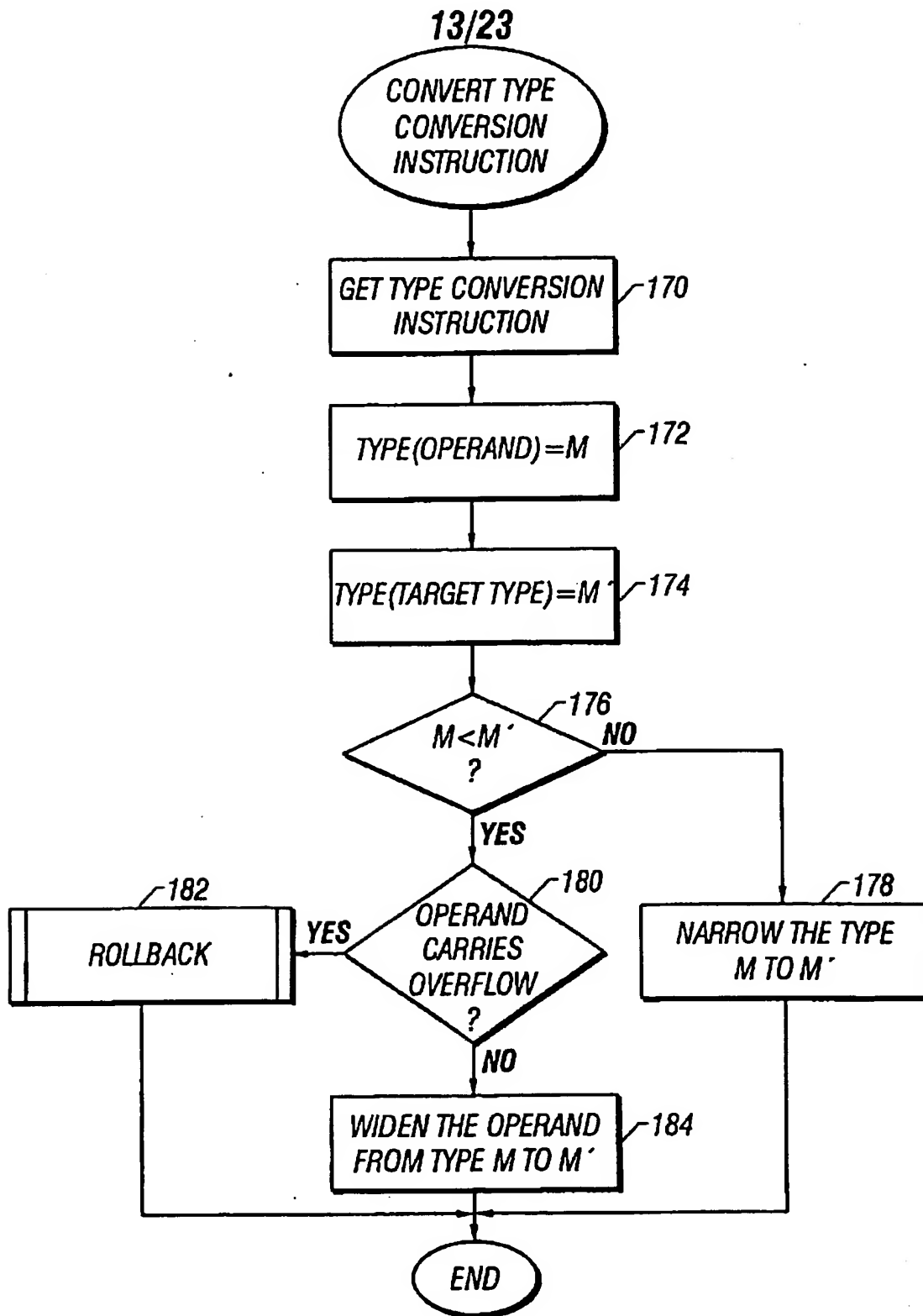
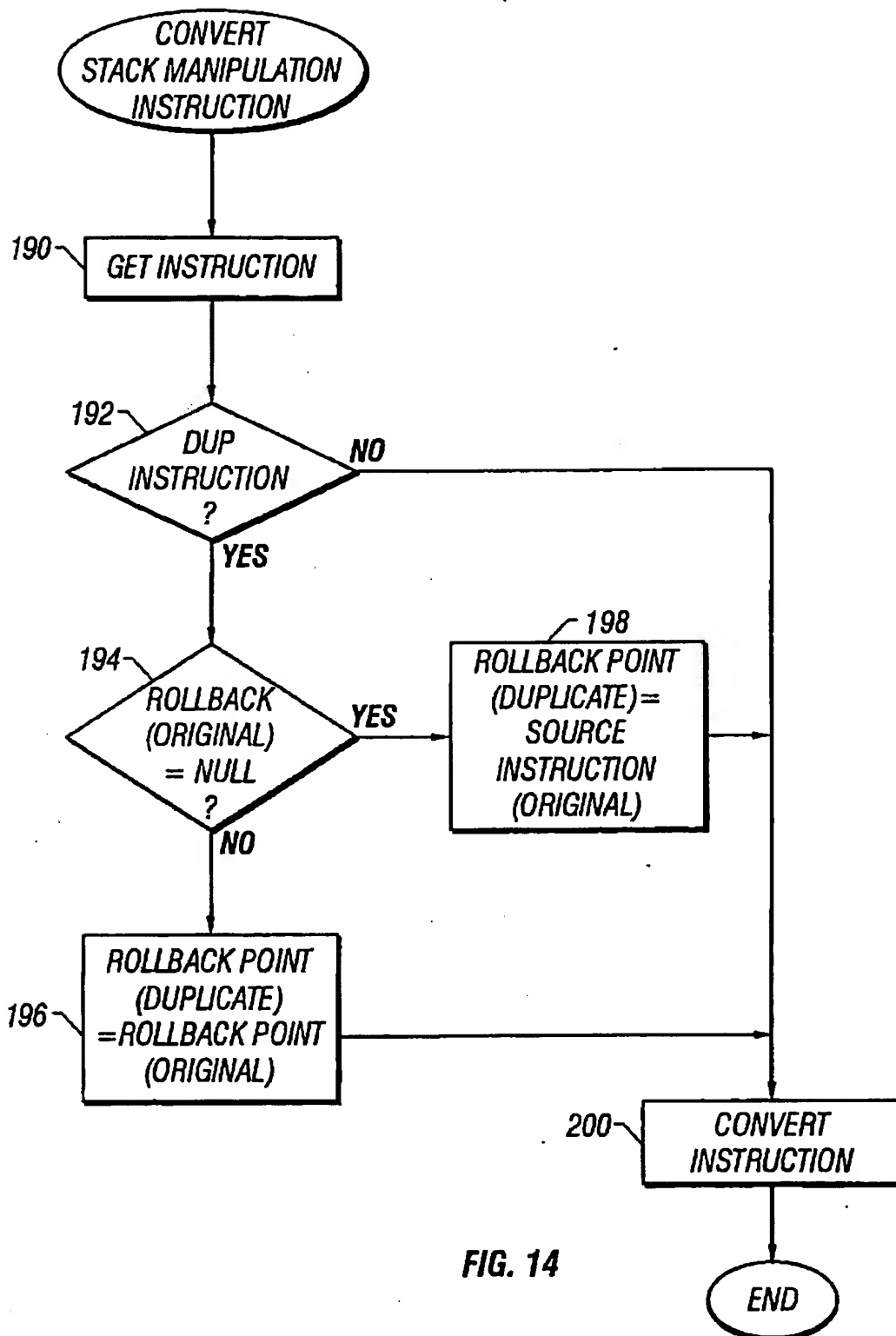


FIG. 13

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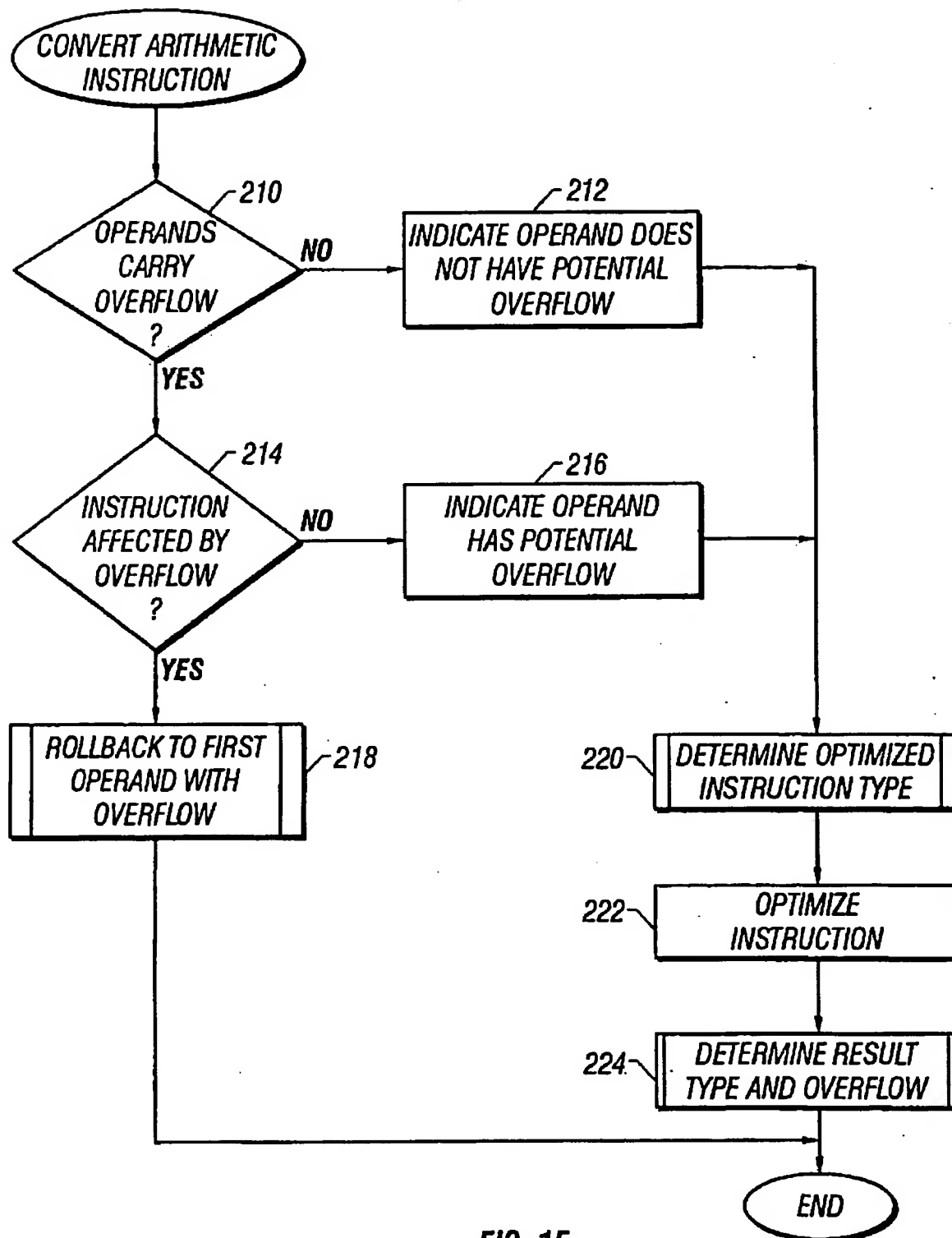


FIG. 15

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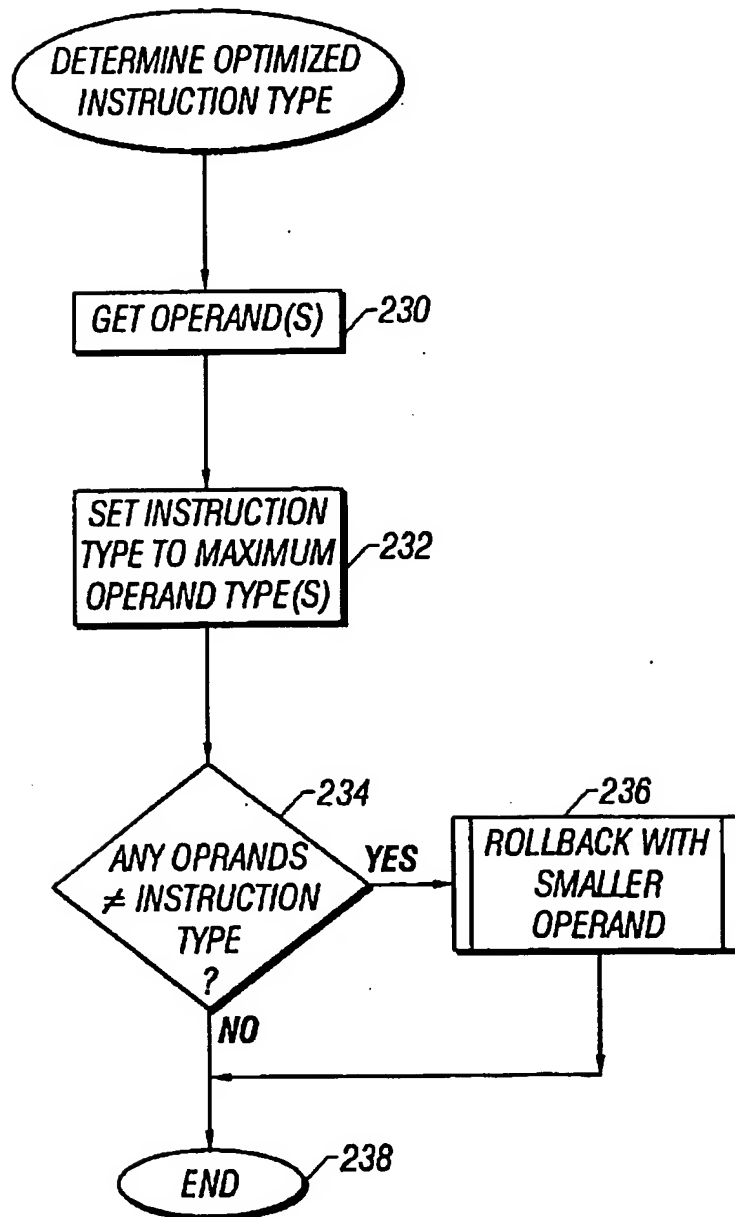


FIG. 16



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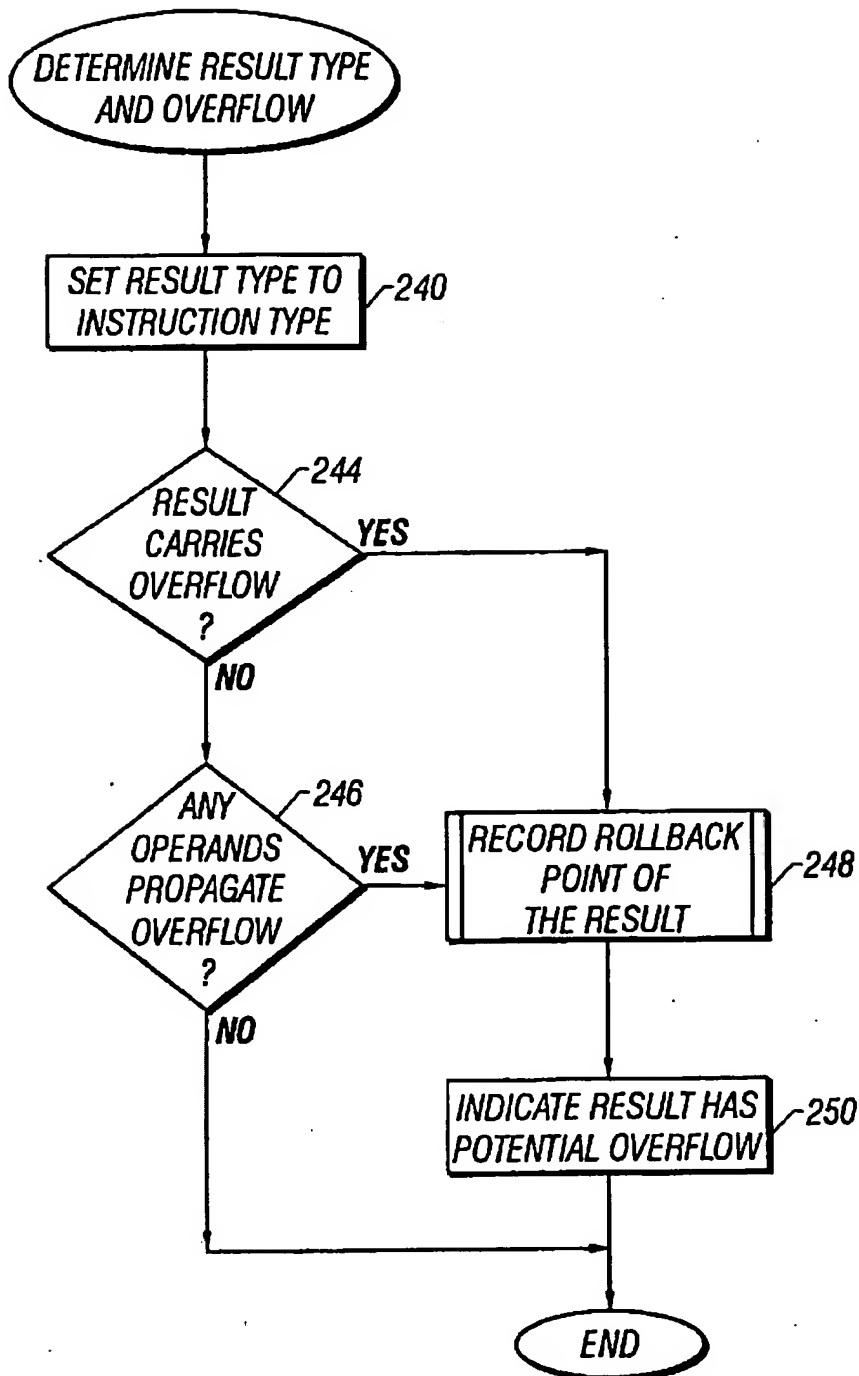


FIG. 17

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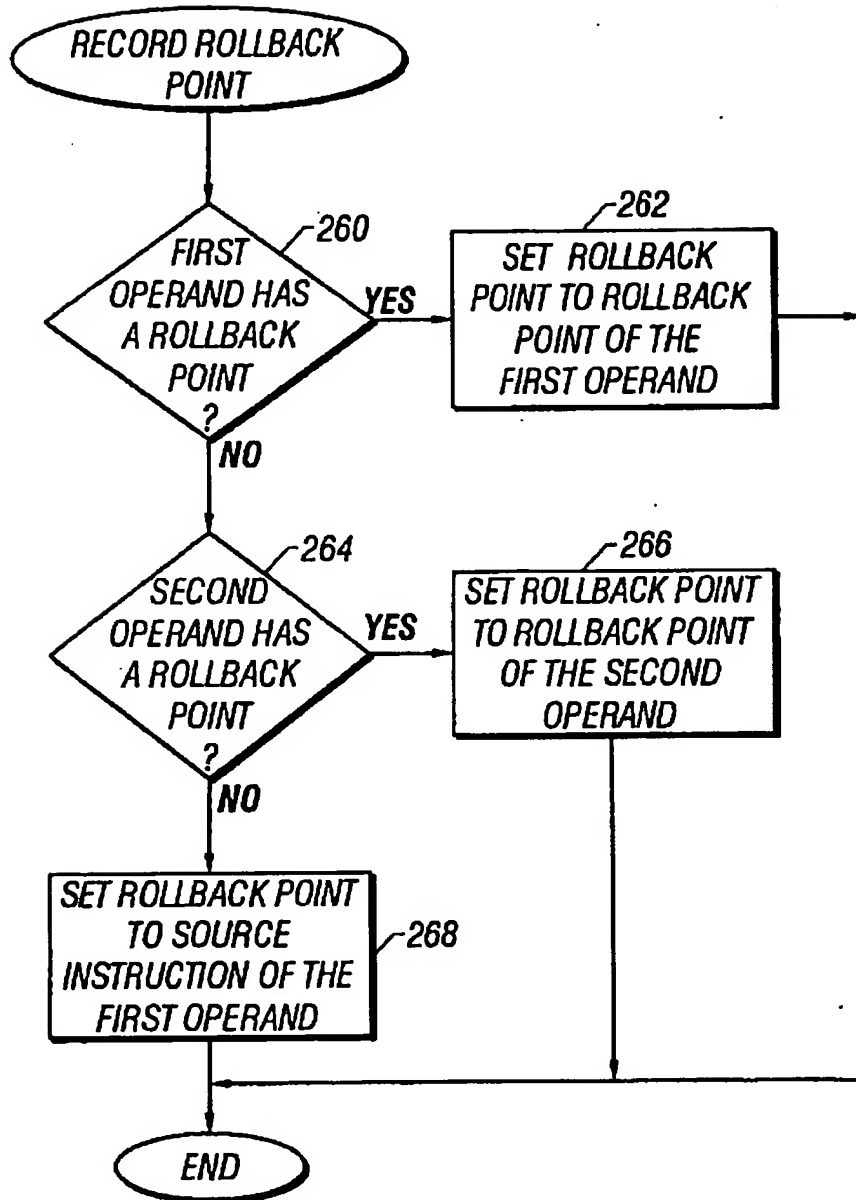


FIG. 18

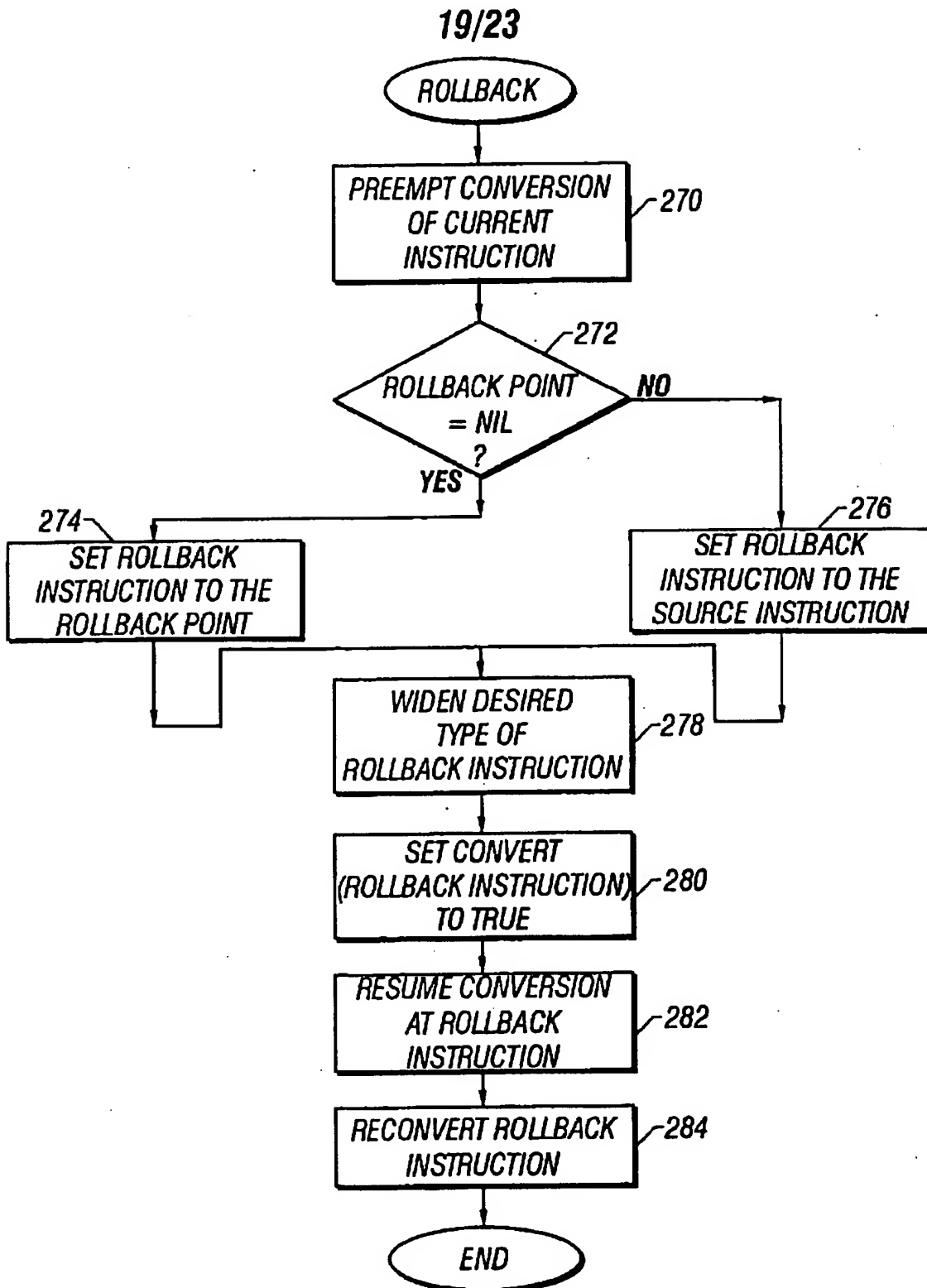


FIG. 19

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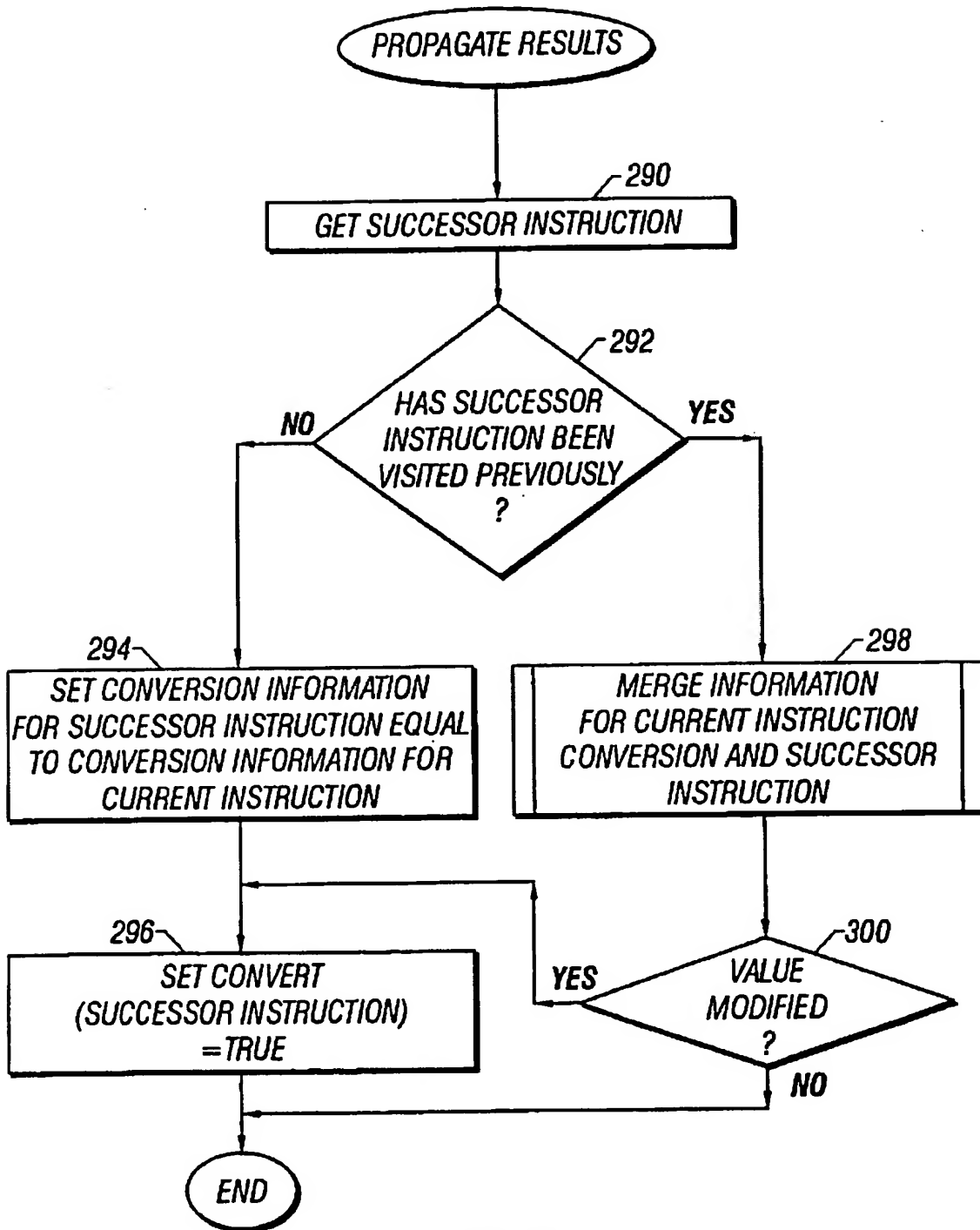


FIG. 20

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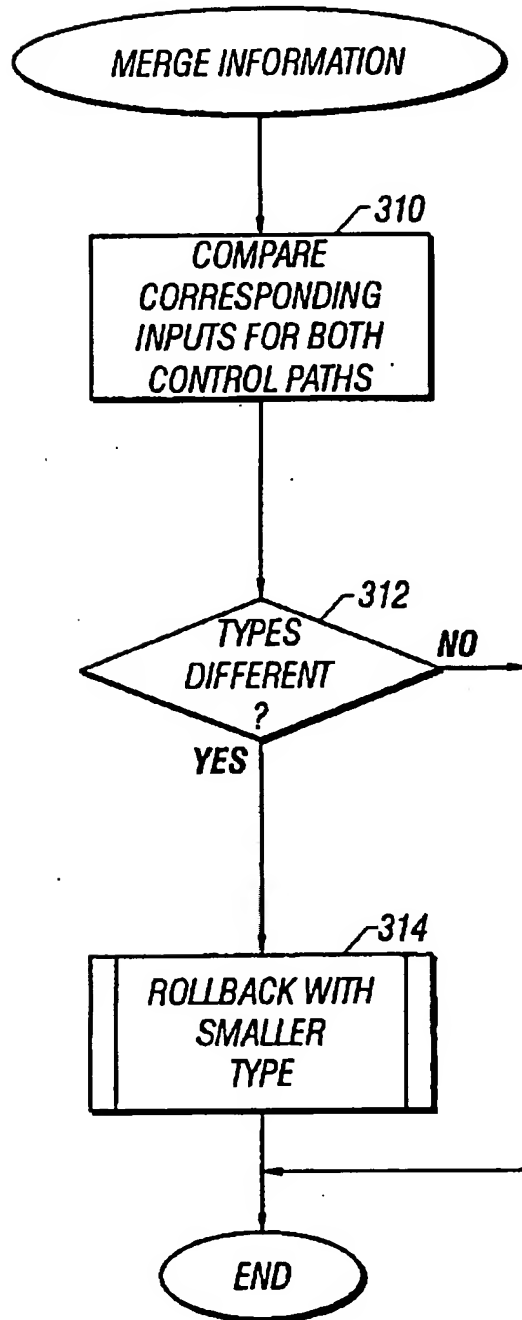


FIG. 21

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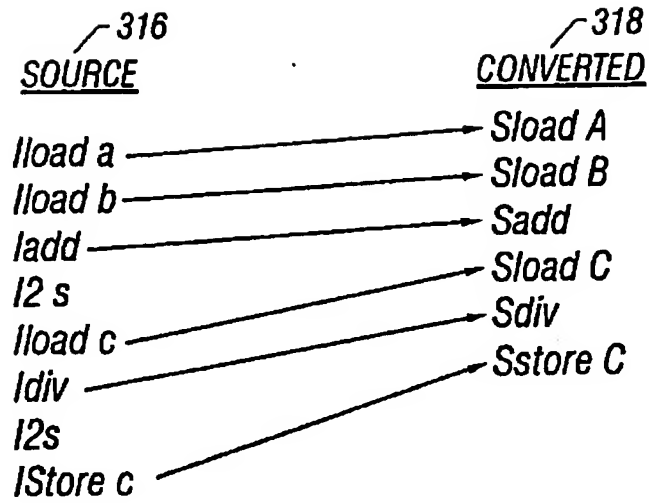


FIG. 22A

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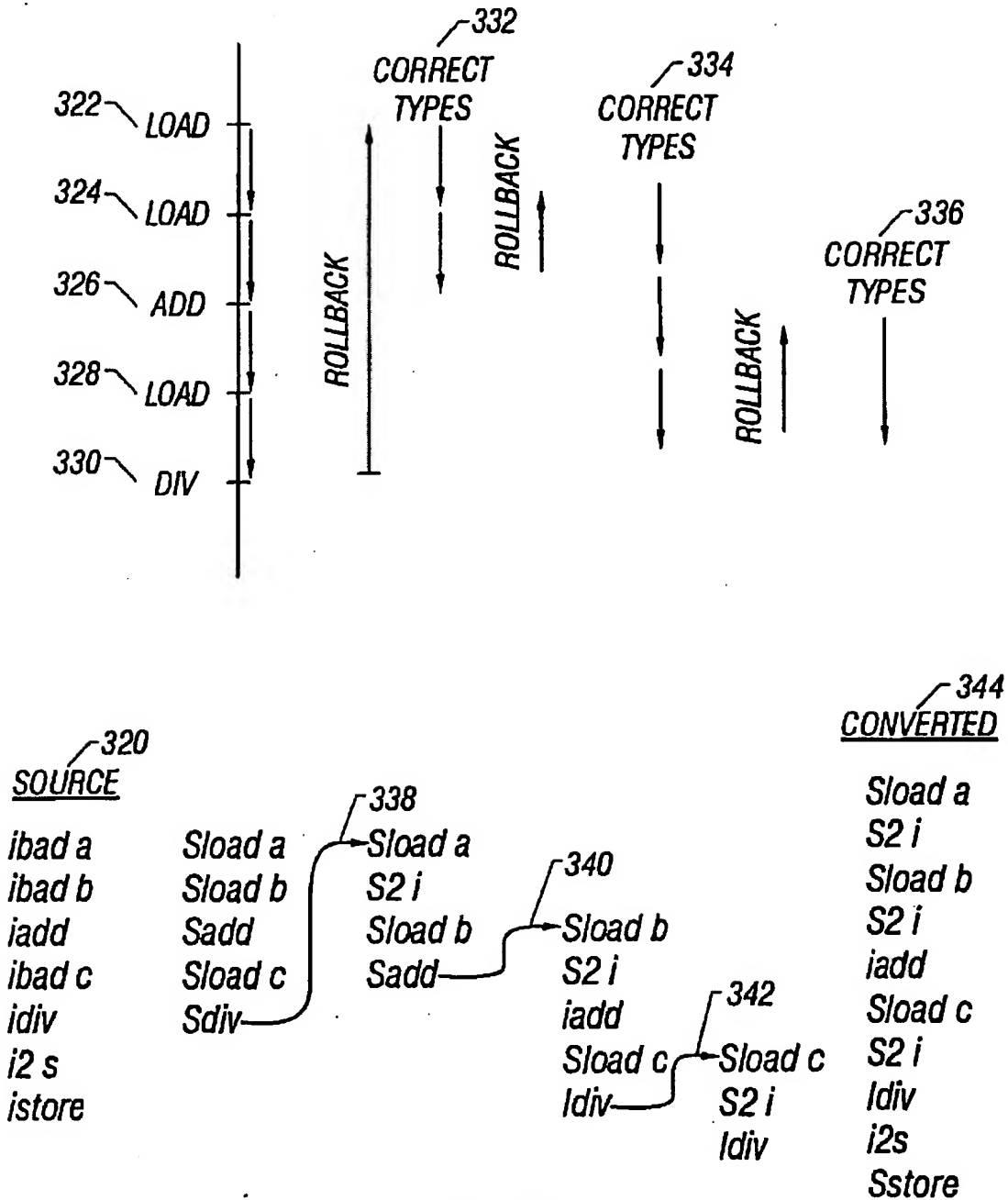


FIG. 22B